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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

AU, SCOTT D

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	09/915,080		FITZGIBBON ET AL.	
	Examiner		Art Unit	
	Scott Au		2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10,11,23,24,26-29,39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10,11,23,24,26-29,39 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is in response to applicant's response to an Amendment, which is filed 07/05/2007.

Claims 1, 3-8,10-11, 23-24, 26-29, and 39-40 are pending.

Claims 2,9,12-22,25,30-38 are canceled.

Response to Arguments

Applicant's arguments, see Remarks, filed 07/05/2007, with respect to amended claims 1, 3-8,10-11, 23-24, 26-29, and 39-40 have been fully considered but they are not persuasive.

1. In response to applicant's argument (see remarks, page 9, 3-4th paragraphs) **that Mays does not teach or suggest a dependent speaker module analyzing a first voice signal and then an independent speaker module analyzing a second voice signal when identification of the first voice signal fails**, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Further, with regards to claims 1, 7, 23, 26 and 30, the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed

apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. See MPEP 2114.

Furthermore, as stated in column 4, lines 48-62 of Dams "The system may incorporate higher-level measures for ascertaining whether or not recognition was correct, thereby externally defining an appropriate speech item. One is to provide an additional question to the user that must be answered by yes/no only. Another one is to build-in a check by key actuation, or to allow keying in of a particular phrase. This allows to automatically update the stored body of templates for so continually improving the performance of the system. In fact, the combination of an unrecognized speech item and the subsequent ascertaining of the meaning of the unrecognized speech item will combine to update the stored body of templates. The training with templates that correspond to immediately recognized speech items, on the basis of the speech itself, will cater for slow drifts in the manner the speech in question is actually produced." **"The additional question to the user that must be answered by yes/no only"** is considered to be functionally equivalent to the claimed "second received voice signal". And **"the combination of an unrecognized speech item (i.e. first received voice signal) and the subsequent ascertaining of the meaning of the unrecognized speech item (i.e. the second received voice signal) will combine to update the stored body of templates"**, is considered to be functionally equivalent to the claimed "the speaker independent voice analysis arrangement being activated to analyze the second received voice signal when the speaker dependent voice arrangement fails to identify the first received voice signal". Dams suggests that the serial combination of a

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speaker-dependent and speaker independent voice analysis arrangement, as claimed, is advantageous because it is beneficial to both frequent and novice or accidental users {Dams, col. 3, lines 3-4+ and lines 25-27+}. That is, using all recordings for training will always result in over-representation of frequent users and using only the failed recognition will result in performance oscillation, but all users will be able to use the system {Dams, col. 3, lines 33-39}. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to include the "speaker dependent voice analysis arrangement for analyzing a first received voice signal and a speaker independent voice analysis arrangement for analyzing a second received voice signal, the speaker independent voice analysis arrangement being activated to analyze the second received voice signal when the speaker dependent voice arrangement fails to identify the first received voice signal" of Dams in the system of Gullman because, as taught by Dams, all users including frequent and novice or accidental users, will be able to use the system.

Finally, there is no distinction between the first and second received voice signal. As such, the second received voice signal is considered to be a repeat of the first received signal.

2. In response to applicant's argument [see page 10 and 3th paragraph of Remarks] that **"Nothing in the prior art shows a speaker independent analysis in response to successful speaker dependent analysis"**, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior

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art. If the prior art structure is capable of performing the intended use, then it meets the claim (see above Examiner response).

3. Therefore, according to claims 1, 3-8,10-11, 23-24, 26-29, and 39-40, all the claim elements were known in the prior arts and one skilled in the art could have combined and substituted the elements for another would have yielded predictable results to one ordinary skill in the art at the time of the invention.

Based on the above, the rejection of claims 1, 3-8,10-11, 23-24, 26-29, and 39-40 is maintained in this Office action.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-7, 10, 23, and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gullman et al. (US# 5,280,527) in view of Damet al. (US# 6,792,0830).

In claims 1, 7 and 39, Gullman et al. teach of a security control apparatus comprising:

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a security device (i.e. electronic gate/lock 10) {see Gullman et al, paragraph bridging cols. 2 and 3};

a control apparatus (i.e. access device 12) responsive to security codes for enabling and disabling the security device {see Gullman et al, col. 3, lines 19-35+};

a voiceprint/speech activated controller unit (i.e. security code source unit 14) for communicating a token (i.e. security codes) to the control apparatus 12, as shown in figure 1, the security code source unit having a user controlled keypad and a voiceprint analysis apparatus 14, as shown in figure 2, and including circuitry responsive to the voiceprint analysis apparatus 14 for communicating to the control apparatus a security code including a portion (i.e. user input challenge code, wherein the challenge code is either using a keypad, writing tablet or by voice which is different than the first voice signal for a security purpose) representing user interaction with the security code source unit {see Gullman et al, col. 2, lines 40-47; paragraph bridging cols. 3 and 4}.

Although Gullman et al. does not disclose "the voice analysis apparatus comprises a speaker dependent voice analysis arrangement for analyzing a first received voice signal and a speaker independent voice analysis arrangement for analyzing a second received voice signal, the speaker independent voice analysis arrangement being activated to analyze the second received voice signal when the speaker dependent voice arrangement fails to identify the first received voice signal", such features are conventional as shown in Figure 3, steps 54-66 of Dams et al and described in column 4, lines 20-28. And in column 4, lines 48-62 of Dams et al states;

"The system may incorporate higher-level measures for ascertaining whether or not recognition was correct, thereby externally defining an appropriate speech item. One is

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to provide an additional question to the user that must be answered by yes/no only. Another one is to build-in a check by key actuation, or to allow keying in of a particular phrase. This allows to automatically update the stored body of templates for so continually improving the performance of the system. In fact, the combination of an unrecognized speech item and the subsequent ascertaining of the meaning of the unrecognized speech item will combine to update the stored body of templates. The training with templates that correspond to immediately recognized speech items, on the basis of the speech itself, will cater for slow drifts in the manner the speech in question is actually produced."

"The additional question to the user that must be answered by yes/no only"

is considered to be functionally equivalent to the claimed "second received voice signal". And **"the combination of an unrecognized speech item (i.e. first received voice signal) and the subsequent ascertaining of the meaning of the unrecognized speech item (i.e. the second received voice signal) will combine to update the stored body of templates"**, is considered to be functionally equivalent to the claimed "the speaker independent voice analysis arrangement being activated to analyze the second received voice signal when the speaker dependent voice arrangement fails to identify the first received voice signal". Dams et al suggests that the serial combination of a speaker-dependent and speaker independent voice analysis arrangement, as claimed, is advantageous because it is beneficial to both frequent and novice or accidental users {see Dams et al, col. 3, lines 3-4+ and lines 25-27+}. That is, using all recordings for training will always result in over-representation of frequent users and using only the failed recognition will result in performance oscillation, but all users will be able to use the system {see Dams et al, col. 3, lines 33-39}. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to include the "speaker dependent voice analysis arrangement for analyzing a

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first received voice signal and a speaker independent voice analysis arrangement for analyzing a second received voice signal, the speaker independent voice analysis arrangement being activated to analyze the second received voice signal when the speaker dependent voice arrangement fails to identify the first received voice signal” of Dams et al in the system of Gullman et al because, as taught by Dams et al, all users including frequent and novice or accidental users, will be able to use the system.

In claims 3 and 5-6, Gullman et al teach the security code source unit comprises memory {see Gullman et al, col. 4, lines 44-49} for storing a pass code (i.e. user input challenge code) entered by a user in association with representations of speech generated by the voice analysis apparatus {see Gullman et al, col. 2, lines 40-47+; col. 6, lines 30-45+}.

In claim 4, Gullman et al teach the circuitry for communicating responds to predetermined comparison characteristics between a stored speech representation and a spoken speech representation for communicating a security code {see Gullman et al, col. 5, lines 60-65}.

In claim 10, Gullman et al teach the biometric samples are obtained and stored as templates for a single or multiple users {see Gullman et al, col. 5, lines 57-61+}.

Claim 23 recites the limitations of claim 1 and therefore rejected for the same reasons.

In claim 24, although Gullman et al does not disclose “the speaker independent voice analysis apparatus is enabled for a predetermined period of time after the barrier control apparatus is controlled to move the barrier”, it would have been obvious to one

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of ordinary skill in the art, at the time of applicant's invention, to program the control apparatus 10 of Gullman to control the type of access or transactions {see Gullman et al, col. 6, lines 42-45} as claimed, because it saves energy as compared to being enabled all the time, to one of ordinary skill in the art. because it saves energy as compared to being enabled all the time. It also allows a user to change a given command when the action of a given command is not the desired result or allow a user to change a given command to prevent an accident from occurring.

Claim 40 recites a method for practicing the apparatus of claim 1 and therefore rejected for the same reasons.

6. Claims 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gullman et al. (US# 5,280,527) in view of Dams et al. (US# 6,792,083) and further in view of Pinzon (US# 6,161,005).

Claim 26 recites the limitations of claim 1, except Gullman et al does not disclose a barrier movement apparatus comprising a motor. Although Gullman et al does not disclose "a motor for operating the barrier", these claimed features would have been obvious in the system of Gullman et al as evidenced by Pinzon. Pinzon teaches, **"all electronic door locking mechanisms have in common a motor for causing a mechanical locking member to move to a locking or unlocking position {see Pinzon, col. 4, lines 34-45} of a garage door" {see Pinzon, col. 2, lines 60-65}**. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to include the motor for operating the barrier of Pinzon in the

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system of Gullman et al because, as taught by Pinzon, all electronic door locking mechanisms have in common a motor for causing a mechanical locking member to move to a locking or unlocking position of a garage door.

In claims 27-29, although Gullman et al does not disclose that "the speaker independent voice analysis apparatus is enabled for a predetermined period of time after the barrier control apparatus is controlled to move the barrier", it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to program the control apparatus 10 of Gullman to control the type of access or transactions {see Gullman et al, col. 6, lines 42-45} as claimed, because it saves energy as compared to being enabled all the time. It also allows a user to change a given command when the action of a given command is not the desired result or allow a user to change a given command to prevent an accident from occurring.

7. Claims 1, 3-8 and 10-11, 23-24 and 39-40, are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0018478 {hereinafter "Mays"} in view of US 6,792,083 {Dams et al}, and further in view of USP 5,280,527 {Gullman et al}.

In claims 1, 4-6, and 39, Mays teaches of a speech activatable door operator system (i.e. security control apparatus 10) comprising:

- a barrier or door (i.e. security device 20);

- a base controller (i.e. control apparatus 36) responsive to security codes for enabling and disabling the security device 20;

- a speech activated controller unit (i.e. security code source unit 38, 46, 48, 50) for communicating security codes to the control apparatus 36, as shown in figure 1, the

security code source unit having a user controlled keypad 56 and a voice analysis apparatus 53, as shown in figure 2, and including circuitry responsive to the voice analysis apparatus 53, as shown in figure 3, for communicating to the control apparatus a security code [0021]-[0022]+. The voice analysis apparatus comprises a speaker dependent voice analysis arrangement and a speaker independent voice analysis arrangement {Mays, [0008], [0023]+}.

Although Mays does not disclose **“the speaker independent voice analysis arrangement being activated when the speaker dependent voice arrangement fails to identify a received voice signal”**, such features are conventional as shown in Figure 3, steps 54-66 of Dams et al, and described in column 4, lines 20-28. As stated in column 4, lines 48-62 of Dams et al **“the additional question to the user that must be answered by yes/no only”** is considered to be functionally equivalent to the claimed **“second received voice signal”**. And **“the combination of an unrecognized speech item (i.e. first received voice signal) and the subsequent ascertaining of the meaning of the unrecognized speech item (i.e. the second received voice signal) will combine to update the stored body of templates”**, is considered to be functionally equivalent to the claimed **“the speaker independent voice analysis arrangement being activated to analyze the second received voice signal when the speaker dependent voice arrangement fails to identify the first received voice signal”**. Dams suggests that the serial combination of a speaker-dependent and speaker independent voice analysis arrangement, as claimed, is advantageous because it is beneficial to both frequent and novice or accidental users {see Dams et al, col. 3, lines

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3-4+ and lines 25-27+}. That is, using all recordings for training will always result in over-representation of frequent users and using only the failed recognition will result in performance oscillation, but all users will be able to use the system {see Dams et al, col. 3, lines 33-39}. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to include the "speaker dependent voice analysis arrangement for analyzing a first received voice signal and a speaker independent voice analysis arrangement for analyzing a second received voice signal, the speaker independent voice analysis arrangement being activated to analyze the second received voice signal when the speaker dependent voice arrangement fails to identify the first received voice signal" of Dams et al in the system of Mays because, as taught by Dams et al, all users including frequent and novice or accidental users, will be able to use the system.

Although Mays discloses that the keypad 56 may be used to condition the speech activation unit 53 [see Mays, paragraph 0021], Mays does not disclose "a security code including a portion representing user interaction with the security code source unit". However, Gullman et al, teach of a security token (analogous to the claimed security code) that incorporates voiceprint information (i.e. speech) of a user with user input challenge code entered using either a keypad or by voice and that the voiceprint is different than the challenge voice signal {see Gullman et al, col. 2, lines 40-47+; paragraph bridging cols. 3 and 4}. Gullman et al suggests that combining a token {i.e. security code} with biometric information is advantageous because tokens provide security during transmission while the biometric information is used as an ID {see

Gullman et al, col. 1, lines 32-45}. The systems of Mays and Gullman et al are analogous art because they are from the same field of endeavor, secured biometric access systems. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of applicant's invention, to combine tokens with the speech activated door operator system of Mays, as claimed, because, as taught by Gullman et al, tokens advantageously provide additional security during transmission.

In claims 3, 10, the security code source unit comprises memory/template {see Gullman et al, col. 4, lines 44-49} for storing a pass code (i.e. user input challenge code) entered by a user in association with representations of speech generated by the voice analysis apparatus {see Gullman et al, col. 2, lines 40-47+; col. 6, lines 30-45+}. Alternatively, multiple templates for multiple users are stored {see Gullman et al, lines 60-65}.

Claims 7-8, 11, and 23-24 recites the limitations of claim 1 and therefore rejected for the same reasons.

In claim 24, the speech activation unit 53 is enabled for a predetermined period of time until either the battery runs out or the function is changed via the keypad switch {see Mays, [0020]}.

Claim 40 recites a method for practicing the apparatus of claim 1 and therefore rejected for the same reasons.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Au whose telephone number is (571) 272-3063. The examiner can normally be reached on Mon-Fri, 8:30AM – 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached at (571) 272-2981. The fax phone numbers for the organization where this application or proceeding is assigned are (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-3900.

Scott Au



JEFFERY HOFSSASS
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